AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method for determining the presence of colorectal tumors or pre-cancerous lesions in a human subject, which comprises:

a) extracting DNA ~~extraction~~ from stool samples

b) ~~PCR-amplification of~~ amplifying by PCR at least three different DNA fragments with a length of 100 base pairs or more, using deoxynucleotide triphosphates or primers labelled with ~~detectable~~ fluorescent molecule ~~markers~~;

c) ~~quantitation of~~ quantifying the amplified fragments and identifying the amplified fragments as amplicons ~~(amplicons)~~;

d) ~~calculation of~~ calculating the total amount of different amplicons; and

e) ~~comparison of~~ comparing the values obtained in (d) with a reference value, wherein a total amount of amplicons higher than the reference value is indicative of the presence of colorectal tumors in said subject.

2. (currently amended) [[A]] The method according to claim 1, wherein the ~~detectable markers used in step (b) are~~ fluorescent ~~molecules~~ molecule is fluorescein.

3. (canceled)

4. (currently amended) [[A]] The method according to claim 1, wherein at least 8 different DNA fragments are amplified in step (b).

5. (currently amended) [[A]] The method according to claim 1, wherein the DNA fragments are from 100 to 500 bp.

6. (currently amended) [[A]] The method according to claim 1, wherein the DNA fragments span different regions of p53 or APC genes.

7. (withdrawn/currently amended) [[A]] The method according to claim 6, wherein p53 fragments corresponding to exons 5-8 are amplified using the following pairs of primers (SEQ ID NOS 1-8 respectively in order of appearance):

a) ctcttcctgcagtactcccctgc; gccccagctgctcaccatcgcta;

b) gattgctcttaggtctggcccctc; ggccactgacaaccacccttaacc;

c) gcgttgtctcctaggttggctctg; caagtggctcctgacctggagtc;

d) acctgatttccttactgcctctggc;

gtcctgcttgcttacctcgcttagt[[;]].

8. (currently amended) [[A]] The method according to claim 6, wherein APC fragments are amplified using the following pairs of primers (SEQ ID NOS 9-16 respectively in order of appearance):

a) aactaccatccagcaacaga; taatttggcataaggcatag;

b) cagttgaactctggaaggca; tgacacaaagactggcttac;

c) gatgtaatcagacgacacag; ggcaatcgaacgactctcaa;

d) cagtgatcttccagatagcc; aaatggctcatcgaggctca.

9. (currently amended) [[A]] The method according to claim 1, wherein the amplicon quantities are interpolated on a calibration curve obtained from known DNA amounts.

10. (currently amended) [[A]] The method according to claim 1, wherein the amplicons are quantified with an automatic sequencer/analyser or using fluorimetric, ~~calorimetric~~ colorimetric, radioactive or spectrophotometric detection systems.

11. (currently amended) [[A]] The method according to claim 1, wherein the reference value is determined on the basis of case series comprising healthy subjects and patients affected by colorectal tumor or lesions.

12. (withdrawn) A kit containing oligonucleotides, labelling agents, a thermostable DNA polymerase and user instructions to carry out the method of claim 1.

13. (new) A method for determining the presence of colorectal tumors or pre-cancerous lesions in a human subject, which comprises:

a) extracting DNA from stool samples

b) amplifying by PCR at least three different DNA fragments with a length of 100 base pairs or more, using deoxynucleotide triphosphates or primers labelled with fluorescent molecule and wherein APC fragments are amplified using the following pairs of primers (SEQ ID NOS 9-16 respectively in order of appearance):

a) aactaccatccagcaacaga; taatttggcataaggcatag;

b) cagttgaactctggaaggca; tgacacaaagactggcttac;

c) gatgtaatcagacgacacag; ggcaatcgaacgactctcaa;

d) cagtgatcttccagatagcc; aaatggctcatcgaggctca;

c) quantifying the amplified fragments (amplicons);

d) calculating the total amount of different amplicons; and

e) comparing the values obtained in (d) with a reference value, wherein a total amount of amplicons higher than the reference value is indicative of the presence of colorectal tumors or pre-cancerous lesions in said subject.

14. (new) The method according to claim 13, wherein the fluorescent molecule is fluorescein.

15. (new) The method according to claim 13, wherein at least 8 different DNA fragments are amplified in step (b).

16. (new) The method according to claim 13, wherein the DNA fragments are from 100 to 500 bp.

17. (new) The method according to claim 13, wherein the DNA fragments span different regions of p53 or APC genes.

18. (new) The method according to claim 13, wherein the amplicons are quantified with an automatic sequencer/analyser or using fluorimetric, colorimetric, radioactive or spectrophotometric detection systems.

19. (new) The method according to claim 13, wherein the reference value is determined on the basis of case series comprising healthy subjects and patients affected by colorectal tumor or lesions.

20. (new) The kit containing oligonucleotides, labelling agents, a thermostable DNA polymerase and user instructions to carry out the method of claim 13.

21. (new) The method according to claim 13, wherein the method is a method for determining the presence of colorectal tumors, and wherein a total amount of amplicons higher than the reference value is indicative of the presence of colorectal tumors in said patient.

22. (new) The method according to claim 1, wherein the method is a method for determining the presence of colorectal tumors, and wherein a total amount of amplicons higher than the reference value is indicative of the presence of colorectal tumors in said patient.